

## ABSTRACT

The present invention is provided with a voltage-vector control unit (11) that determines, based on voltage instruction values  $V_u$ ,  $V_v$ , and  $V_w$ , voltage vectors output from a power converter in one control cycle of PWM control and times for outputting the voltage vectors, a  
5 voltage-vector adjusting unit (12) that adjusts output times of the voltage vectors input from the voltage-vector control unit (11), and a firing-pulse generating unit (13) that generates, based on the output times of the voltage vectors adjusted by the voltage-vector adjusting  
10 unit, a signal for turning either of on and off semiconductor switching elements forming the power converter. The voltage-vector adjusting unit (12) adjusts a zero-voltage-vector output time so as to ensure that the output time is equal to or larger than a predetermined value. With this, a high voltage exceeding twice a direct-current bus voltage can be  
15 suppressed. Three phases can be collectively controlled.